

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): An analyzing apparatus comprising:

a small-angle X-ray scattering device that can detect X-rays scattered at a small angle to the axis of an X-ray applied to a sample, wherein the small-angle X-ray scattering device comprises: an X-ray source for generating X-rays, an X-ray collecting means for focusing X-rays at one point, and a two-dimensional X-ray detector for detecting X-rays at various points in a plane; X-ray measuring means for applying X-rays to a sample and detecting X-rays generated by the sample;

a mass spectrometer capable of measuring the mass number of the gas gas analyzing means for analyzing gas generated by the sample;

sample-holding means for holding the sample at a position which is common to the small-angle X-ray scattering device and the mass spectrometer, wherein the sample-holding means is connected to provide the gas generated by the sample to the mass spectrometer using a carrier gas; the X-ray measuring means and the gas analyzing means;

sample temperature-controlling means for controlling a temperature of the sample; and

control means for controlling the small-angle X-ray scattering device and the mass spectrometer, X-ray measuring means and the gas analyzing means, causing the same to detect the X-rays and analyze the gas at the same time.

Claim 2 (Canceled)

Claim 3 (Currently Amended): An analyzing apparatus according to claim 1, wherein the sample-holding means holds the sample and is arranged on the an X-ray path in the small-angle X-ray scattering device, X-ray measuring means, the X-rays are applied to the sample held in the sample-holding means, the X-rays generated by the sample are emitted outside the sample-holding means, and the gas generated from the sample are discharged outside the sample-holding means.

Claim 4 (Canceled)

Claim 5 (Currently Amended): An analyzing apparatus according to claim 3, [[4,]] wherein the sample-holding means comprises: has;
an annular member defining that has a space for holding the sample,
a pair of shield members that contact the front and back sides of the annular member and shield the space from outside, and
a gas passage that connects the space in the annular member to the space outside the annular member.

Claim 6 (Original): An analyzing apparatus according to claim 5, further comprising pressing means that presses the shield members onto the annular member.

Claim 7 (Canceled)

Claim 8 (Currently Amended): An analyzing apparatus according to claim 6, [[7,]] which further comprises sample temperature-controlling means for controlling a temperature of the sample, and in which control means changes a condition of controlling the temperature of the sample, in accordance with results of the measuring performed by the mass spectrometer gas-analyzing means and/or results of the measuring performed by the small-angle X-ray scattering device X-ray measuring means.

Claim 9 (Currently Amended): An analyzing method comprising the steps of:
placing a sample at a position which is common to a small-angle X-ray scattering device and a mass spectrometer, wherein the small-angle X-ray scattering device is capable of detecting X-rays scattered at a small angle to the axis of an X-ray applied to the sample, and the mass spectrometer is capable of measuring the mass number of the gas generated by the sample; X-ray measuring means and gas-analyzing means;
applying X-rays to the sample through an X-ray collecting means for focusing X-rays at one point; and
detecting X-rays generated by the sample using a two-dimensional X-ray detector for detecting X-rays at various points in a plane, thereby to measure the x-rays;
providing the gas generated by the sample to the mass spectrometer using a carrier gas; and
analyzing the gas generated by the sample at the same time the X-ray is measured.

Claim 10 (New): The analyzing apparatus according to claim 1, further comprising control means for controlling the small-angle X-ray scattering device, causing the same to detect the X-rays, in accordance with results of analysis performed by the mass spectrometer,

or for controlling the mass spectrometer, causing the same to analyze the gas, in accordance with results of measuring performed by the small-angle X-ray scattering device.

Claim 11 (New): An analyzing apparatus comprising:

X-ray measuring means for applying X-rays to a sample and detecting X-rays generated by the sample;

a mass spectrometer capable of measuring the mass number of the gas generated by the sample;

sample-holding means for holding the sample at a position which is common to X-ray measuring means and the mass spectrometer;

sample temperature-controlling means for controlling a temperature of the sample; and

control means for controlling the X-ray measuring means and the mass spectrometer, causing the same to detect the X-rays and analyze the gas at the same time;

wherein the sample-holding means holds the sample and is arranged on an X-ray path in the X-ray measuring means, the X-rays are applied to the sample held in the sample-holding means, the X-rays generated by the sample are emitted outside the sample-holding means, and the gas generated by the sample are discharged outside the sample-holding means;

wherein the sample-holding means comprises:

an annular member defining a space for holding the sample;

a pair of shield members that contact the front and back sides of the annular member and shield the space from outside; and

a gas passage that connects the space in the annular member to the space outside the annular member,

further comprising pressing means that presses the shield members onto the annular member.